Overview and Progress Report San Timoteo Watershed Management Program

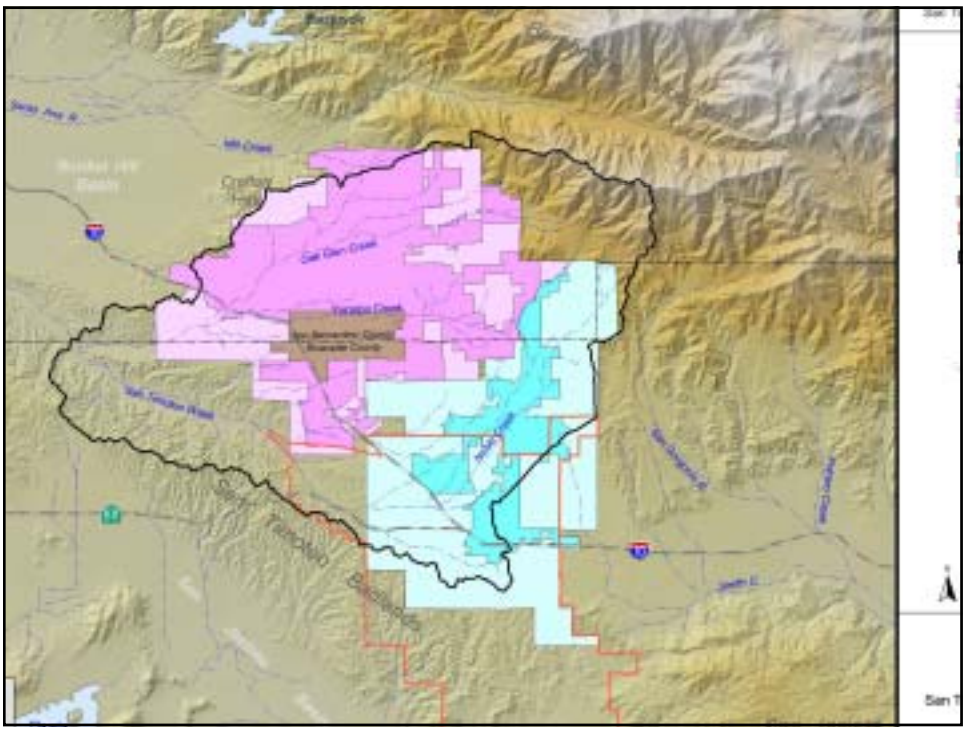
Presentation to SCAG June 9, 2005

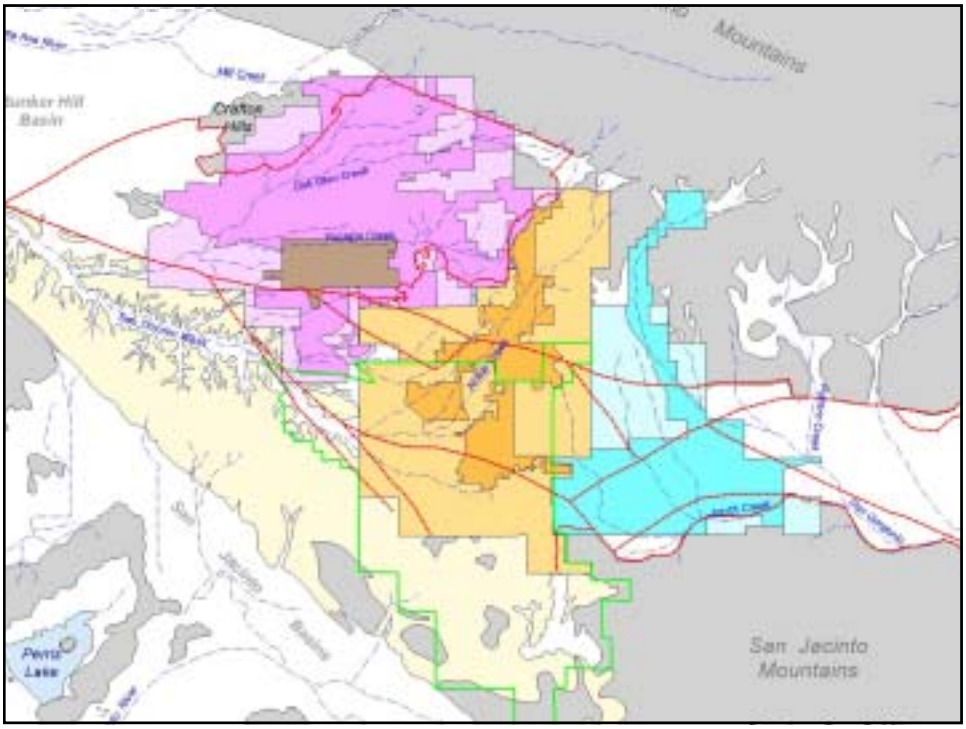
What We Are Going to Talk About

- Who is STWMA?
- What is Watershed Management?
- What has STWMA Accomplished?
- What will STWMA be doing in the near future?

STWMA Background

- JPA created January 2001
- Created to provide water resources planning, management, and project implementation
- Members are:
  - City of Beaumont
  - Beaumont Cherry Valley Water District
  - South Mesa Water Company
  - Yucaipa Valley Water District





What is Watershed Management?

- Watershed management is the watershed-scale management of water and related resources to meet human and natural needs
- The *balance* between human and natural needs is based on stakeholder values and pursuant to law

Watershed Management Process

- Identification of the water resources in a watershed and their interrelationships
- Identification of the relationships of water to other resources
- Identification of the relationship of human and natural activities on water resources and dependant resources

Watershed Management Process

- Development of watershed management goals based on values and regulatory limits – narrative and quantitative metrics
- Assignment of responsibilities and the development of regional partnerships
- Monitoring, assessment and adaptation

STWMA's Watershed Management Program is functionally equivalent to an Integrated Regional Water Management Program

Why is STWMA Developing an IRWMP?

- Local water resources, as they are currently managed, are not sufficient to meet future demands
- Shortfall at ultimate build out is about 67,000 acre-ft/yr
- The cost to dispose of recycled water will increase substantially in the near future

Why is STWMA Developing an IRWMP?

- Yield of Management Area can be enhanced by:
  - Increased stormwater recharge
  - Increased recharge of recycled water
  - Maximize direct use of recycled water in lieu of potable supplies
  - Local optimization/conjunctive use

Why is STWMA Developing an IRWMP?

- Conjunctive-use Potential
  - Unused groundwater storage can be used for regional conjunctive-use programs
  - ~200,000 to 400,000 acre-ft of unused storage space could be made available
  - Based on financial terms in other conjunctive use programs, STWMA could get “outside storage entities” to help pay for improvements in local water resources infrastructure

Goals of STWMA's IRWMP

- Enhance Basin Water Supplies
- Promote Multiple Uses
- Protect and Enhance Water Quality
- Optimize Management of Groundwater Basins
- Protect and Enhance Riparian Habitat
- Equitably Distribute the Benefits and Costs of the IRWMP

Program Elements of the IRWMP

- PE 1 – Develop and implement a comprehensive monitoring program
- PE 2 – Develop and implement a comprehensive surface water management program
- PE 3 – Develop and implement a regional supplemental water master plan
- PE 4 – Develop and implement a salt management plan

Program Elements of the IRWMP

- PE 5 – Establish a groundwater management entity
- PE 6 – Develop and implement conjunctive use programs
- PE 7 – Develop and implement habitat and recreation programs
- PE 8 – Develop and implement a financial plan to enable the STWMP

PE 1 – Develop and Implement a Comprehensive Monitoring Program

- Goal is to collect information to support management activities of the other program elements
  - Groundwater level
  - Groundwater quality
  - Production
  - Surface water discharge and quality
  - Ground level
  - Data management and distribution

PE 1 – Develop and Implement a Comprehensive Monitoring Program

- Accomplishments:
  - Monitoring Plan document is complete
  - Partial implementation is underway
- Action Items
  - Full implemention

PE 2 – Develop and Implement a Comprehensive Surface Water Management Program

- Goals:
  - capture and recharge storm runoff and maximize groundwater yield
  - Improve surface water quality
  - Consistent with new storm water management regulations and flood control

PE 2 – Develop and Implement a Comprehensive Surface Water Management Program

- Accomplishments:
  - Obtained $195K grant to prepare a stormwater management plan for the STWMA area
  - Management plan investigations began in July 2003
- Action Items
  - Complete management plan by September 2005
  - Implement high priority projects ASAP
  - Assist STWMA member agencies with local projects

PE 3 – Develop and Implement a Regional Supplemental Water Master Plan and PE 6 – Develop and Implement a Conjunctive-Use Program

- Goals:
  - develop a reliable water supply that is dependent on ~ 67,000 acre-ft/yr of new water supplies
  - find outside partners/beneficiaries who will help pay for it

PE 3 – Develop and Implement a Regional Supplemental Water Master Plan and PE 6 – Develop and Implement a Conjunctive-Use Program

- Elements:
  - new local supplies
  - supplemental water
  - conveyance and storage needs
  - agency operating plans and agreements
  - type of storage program – bank or local dry-year yield program
  - financing

PE 3 – Develop and Implement a Regional Supplemental Water Master Plan and PE 6 – Develop and Implement a Conjunctive-Use Program

- Accomplishments:
  - Multiphase scope for master plan is complete
  - Phase 1 is complete
  - Remaining cost is about $500 over 12 to 18 months
  - Discussion with one potential storage partner
- Action Items:
  - Complete master plan investigation
  - Expand discussion to other potential storage partners

PE 4 – Develop and Implement a Salt Management Program

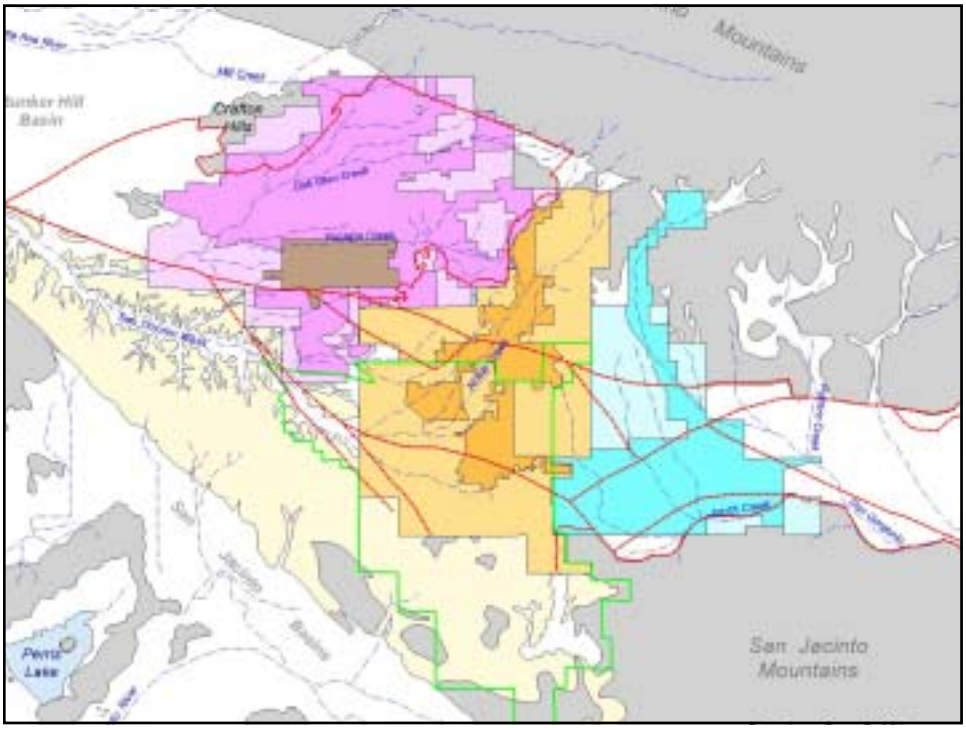
- Goals:
  - Establish a mechanism to track salt accumulation in the watershed due to recycling and water use
  - Develop and implement salt management programs (in-basin and salt offsets)
  - Establish water quality objectives that promote maximum beneficial use of all waters

PE 4 – Develop and Implement a Salt Management Program

- Accomplishments:
  - Salt tracking tool was developed and is currently being used by STWMA and RWQCB
  - STWMA member agencies have made commitments to RWQCB regarding specific salt management activities
  - STWMA was successful in raising the TDS and nitrate objectives in the groundwater basins that underlie the STWMA service area (so called *maximum benefit* initiative)

PE 5 – Establish a Groundwater Management Entity

- Goals:
  - create certainty in the amount of groundwater that each producer will be able to use
  - create certainty in the amount, distribution and management of unused groundwater storage
  - create an entity that will perform accounting, replenishment, and management oversight



PE 5 – Establish a Groundwater Management Entity

- Accomplishments:
  - Successfully conducted negotiations with all major producers, in a very short period
  - Stipulated agreement approved by Superior Court in February 2004
- Action items
  - Assist Beaumont Basin Watermaster as requested

PE 7 – Develop and Implement a Habitat and Recreation Program for the San Timoteo Creek Watershed

- STWMA is a stakeholder and not the lead implementer
- STWMA's role may be:
  - maintaining wetlands created by recycled water discharges prior to January 1, 2002
  - supporting fund raising and lobbying efforts of others when consistent with STWMA goals

PE 7 – Develop and Implement a Habitat and Recreation program for the San Timoteo Creek Watershed

- Action Items:
  - Develop replacement water supplies for habitat created by recycled water
  - Coordination and periodic meetings with conservation agencies and organizations

PE 8 – Develop and Implement a Financial Plan to Enable the IRWMP

- Goals:
  - Actively seek out and acquire outside funding for STWMA and STWMA member agencies for projects that implement the STWMA IRWMP
  - Coordination/negotiation with funding entities
  - Preparation of grant applications, proposals and supporting documentation

PE 8 – Develop and Implement a Financial Plan to Enable the IRWMP

- Accomplishments:
  - Received $195,000 Prop 13 grant to support stormwater management planning
  - Tentatively awarded AB303 grant to monitor subsidence for the Beaumont Basin area
  - Regularly met with SWRCB, DWR, SAWPA and other agencies regarding outside funding opportunities
  - $38 million in construction grant applications pending for STWMA and its member agencies

PE 8 – Develop and Implement a Financial Plan to Enable the IRWMP

- Action Items:
  - Continue regular meetings and dialogue with SWRCB, DWR, SAWPA, Bureau of Reclamation ,and other entities regarding outside funding opportunities
  - Aggressively lobby for $38 million in construction grant applications pending for STWMA and its member agencies
  - Aggressively seek other funding opportunities for STWMA and STWMA member agency projects

What has STWMA Accomplished Since the IRWMP Was First Articulated?

- Stormwater management program investigation is underway – almost complete
- Started supplemental and conjunctive-use planning
- Completed a complex water rights adjudication
- Developed a salt management program
- Developed a watershed monitoring program
- Aggressively sought outside funding

Recent Actions by STWMA to Implement IRWMP

- STWMA received 2005 Draft IRWMP in January 2005
- STWMA started programmatic CEQA process on the Draft IRWMP in March 2005

What are STWMA Priorities for the Next Three Years?

- Finalize CEQA and Adopt IRWMP
- Implement recharge master plan – storm, imported and recycled water
- Complete and implement supplemental water and conjunctive-use master plan

What are STWMA Priorities for the Next Three Years?

- Acquire additional Table A allocation through SGPWA
- Continue watershed monitoring programs
- Aggressively seek outside funding

Questions?

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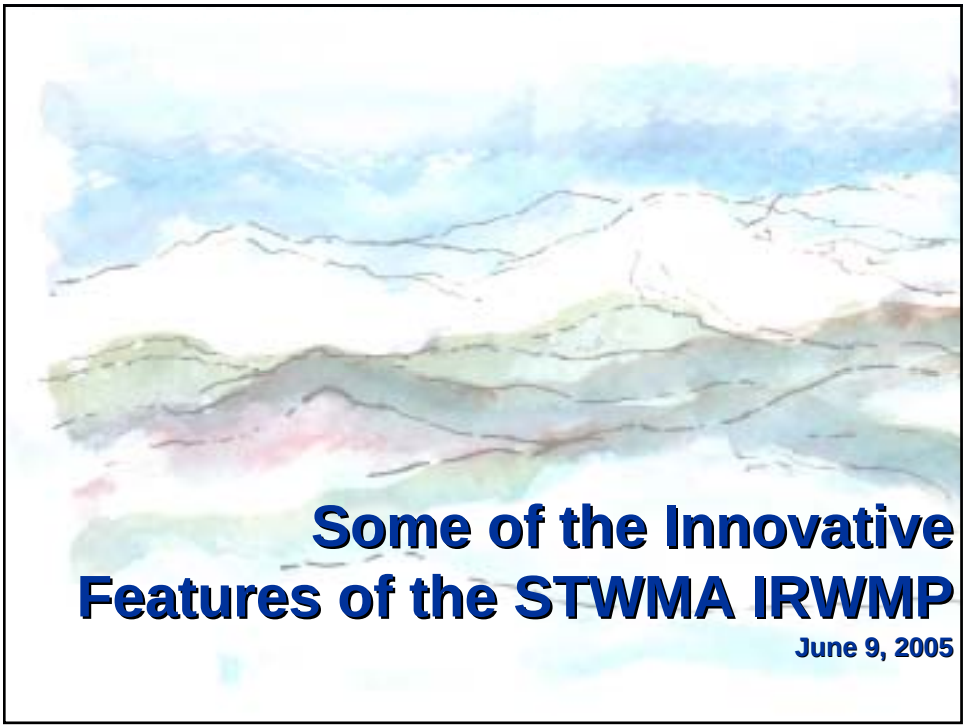


Some of the Innovative Features of the STWMA IRWMP

June 9, 2005

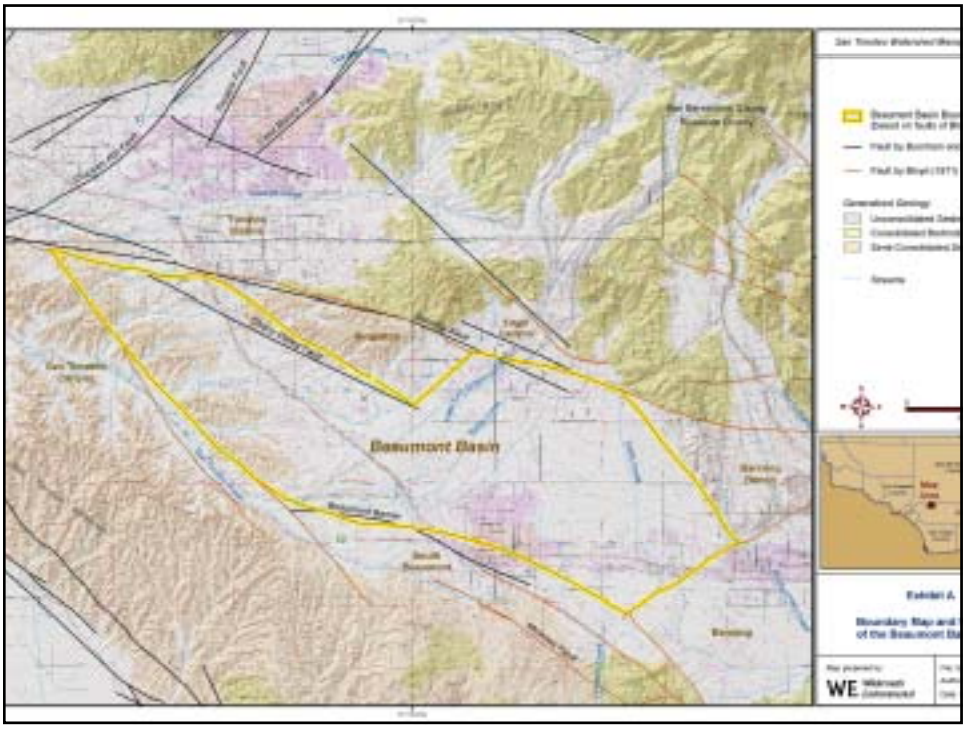
What We Are Going to Talk About

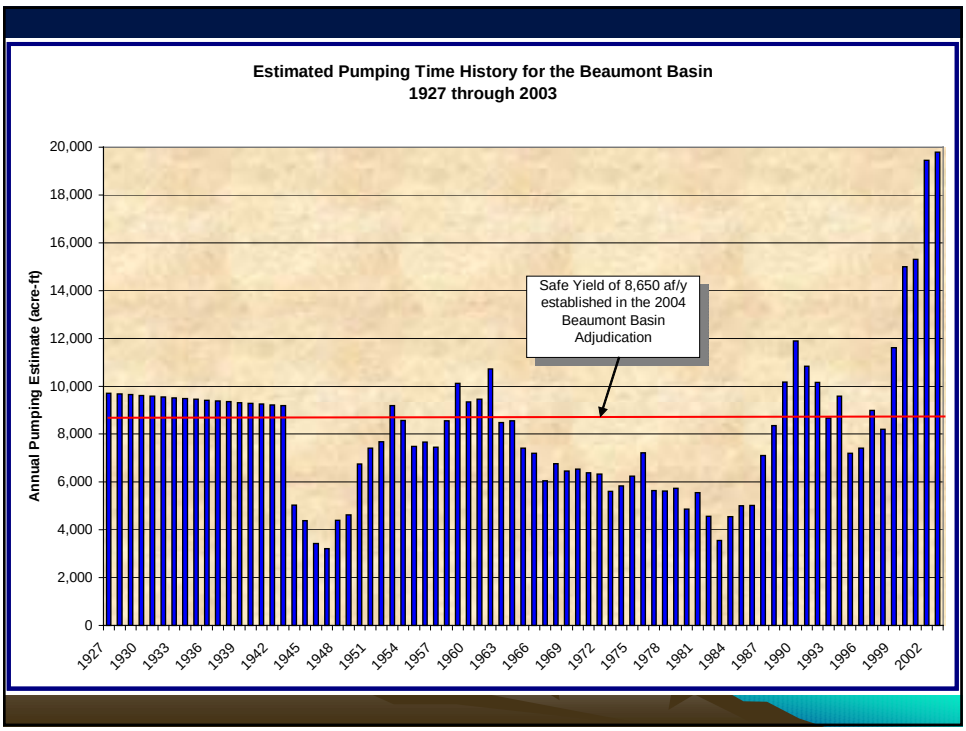
- Beaumont Basin Adjudication
- Maximum Benefit Demonstration
- Regional Water Demand and Supply Plan

Beaumont Basin Adjudication

Beaumont Basin Adjudication

- Overlying and appropriative pumpers agreed that pumping exceeded recharge in the Beaumont Basin
- Yield ~ 8,600 acre-ft/yr
- Pumping was headed towards 20,000 acre-ft/yr
- Groundwater levels were starting to decline in the east and west ends of the basin


Beaumont Basin


Estimated Pumping Time History for the Beaumont Basin
1927 through 2003
Annual Pumping Estimate (acre-ft)
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
1927
1930
1933
1936
1939
1942
1945
1948
1951
1954
1957
1960
1963
1966
1969
1972
1975
1978
1981
1984
1987
1990
1993
1996
1999
2002
Safe Yield of 8,650 af/y established in the 2004 Beaumont Basin Adjudication

Beaumont Basin Adjudication

- Goals:
  - Manage production to sustainable levels
  - Create certainty in the amount of groundwater that each producer will be able to use
  - Provide for orderly conversion from overlying to appropriative uses

Beaumont Basin Adjudication

- Goals:
  - Create certainty in the amount, distribution and management of unused groundwater storage space
  - Create an entity that will perform accounting, replenishment, and management oversight

Beaumont Basin Adjudication

- History of the Adjudication
  - STWMA files law suit in Feb 2003
  - Negotiated agreement among all major producers, by end of Summer of 2003
  - Stipulated agreement approved by Court in February 2004

Beaumont Basin Adjudication

- Features:
  - Established sustainable operating yield
  - Created certainty in the amount of groundwater that each producer will be able to use
  - Created certainty in the amount, distribution and management of unused groundwater storage space

Beaumont Basin Adjudication

- Features:
  - Created an entity that will perform accounting, replenishment, and management oversight – the *Watermaster*
  - Provides for a temporary surplus (controlled mining) of groundwater for use during the first ten years
  - Continued jurisdiction of the Court

Temporary Surplus

- "*Temporary Surplus*" is a management concept first articulated in the San Fernando Adjudication
- Maximizes sustainable yield of basin
- Creates room for groundwater storage programs
- Orderly transition to sustainable yield management

Temporary Surplus

- 2003 version of DWR's Bulletin 118:
  - "In some cases local agencies may choose to deliberately extract groundwater in excess of recharge (known as groundwater mining) as part of an overall management strategy"

Temporary Surplus

- Specialized Monitoring will assess potential for undesirable effects
  - Water quality
  - Subsidence
  - Loss of production capacity
- Appropriators to mitigate
- Adjustment of temporary surplus

Temporary Surplus

- Most of the temporary surplus will remain unused if the East Branch Expansion is expanded and capacity limitations are removed
- Parties will enhance SGPWA Table “A” by providing SGPWA funds to purchase additional Table “A” water

Beaumont Basin Adjudication

- Watermaster Accomplishments
  - Initiated Watermaster process
  - Prepared Watermaster R&R’s
  - Developed metering program
  - Developed monitoring program
  - Completed its first annual report (FY 2004/05)

Maximum Benefit Demonstration

Maximum Benefit

- STWMA petitioned the RWQCB to increase the TDS and Nitrogen water quality objectives for the Beaumont and San Timoteo Basins
  - Goal is to promote the maximum use of recycled water
  - Basis is WC Section 13241

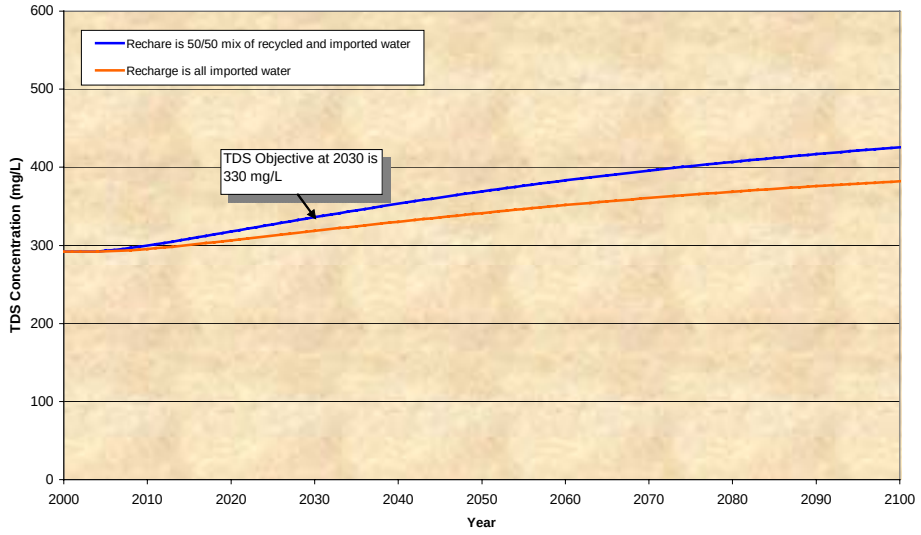
13241 Criteria

- "Factors to be considered by a regional board in establishing water quality objectives shall include, but not necessarily be limited to, all of the following:
  - (a) Past, present, and probable future beneficial uses of water.
  - (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

13241 Criteria

- "Factors to be considered by a regional board in establishing water quality objectives ….:
  - (c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
  - (d) Economic considerations.
  - (e) The need for developing housing within the region.
  - (f) The need to develop and use recycled water.

Figure 2
Comparison of TDS Concentration Time Histories for Selected Water Resources Management Cases



Maximum Benefit

- STWMA petitioned the RWQCB to increase the TDS and Nitrogen water quality objectives for the Beaumont and San Timoteo Basins
  - RWQCB agreed with certain stipulations
  - Basin Plan revisions adopted, with no negative comments, in December 2004
  - STWMA and member agencies are moving forward with recycled water recharge

What Do the Maximum Benefit-based Objectives Provide?

- Fully protect all beneficial uses
- Permits the recharge of recycled and imported water
- Enables conjunctive use with local and regional partners
- Provides for remediation of salt impacts in the out years if necessary

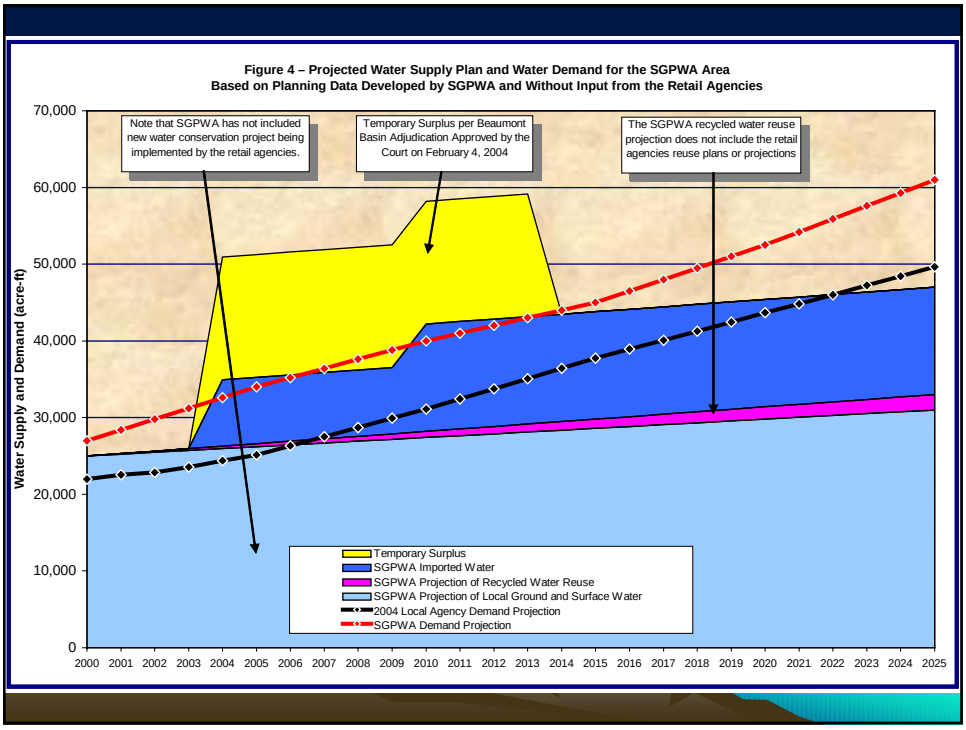
Regional Water Demand and Supply Plan

or

Is There an Adequate Supply of Water through 2025?

Water Supply Plan for the Next 20 Years

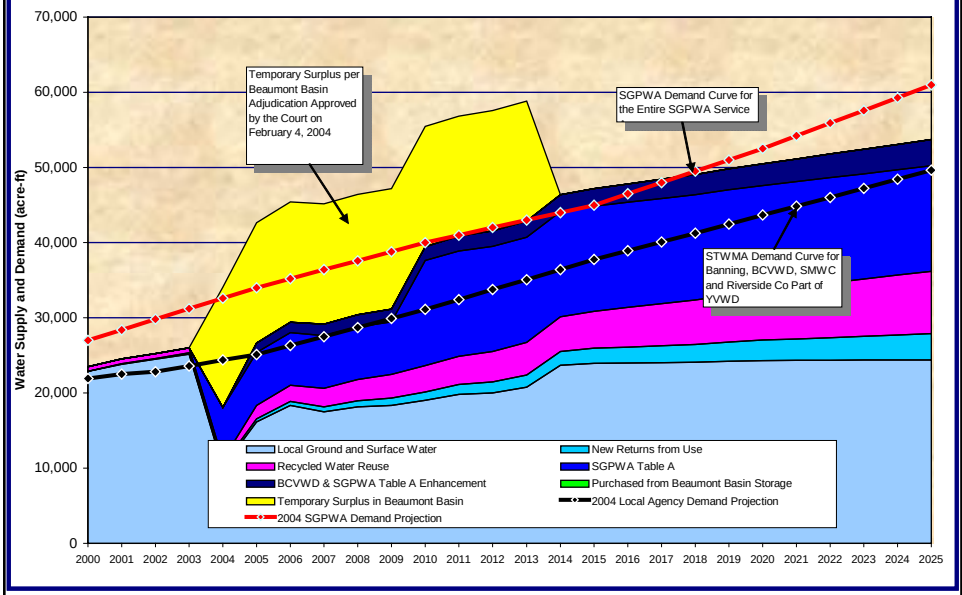
- There are two water supply plans being discussed in the STWMA area – SGPWA's and STWMA's
- SGPWA's plan is based on it independent assessment of demand and supply
  - Includes some areas east of Banning
  - Excludes new supplies being developed by retail agencies
  - Does not include any input from the retail agencies
  - Excludes impact of Beaumont Basin Adjudication
  - Projects a supply shortfall by 2014



Water Supply Plan for the Next 20 Years

- STWMA's plan is based on the integration of the plans of STWMA member agencies and the City of Banning
  - Demands based on SCAG and historically based water duties
  - Includes new yield from new stormwater
  - Includes recycling
  - Adopted by STWMA members and the Beaumont Basin Watermaster
  - Projects a supply surplus through 2025 and most of the temporary surplus in storage, i.e. not used

Figure 3 – Projected Water Supply Plan and Demand for Banning, the BCVWD, the SMWC, and Riverside County Part of the YVWD Based on Planning Information Provided by these Retail Agencies



There Will Be Enough Water!

- Development of new supplies to meet future demands through 2025 will require significant effort
  - New storm water recharge
  - New recycled water use
  - Increase in returns from use
  - Increase in Table “A” allocation

STWMA Water Demand and Supply Plan

- STWMA Developed Water Demand and Supply Projections
  - For STWMA’s IRWMP and to support LAFCO MSR process
  - Based on most recent demand projections and water supply plans of retailers
  - STWMA’s projections have been reviewed and adopted by STWMA and the Beaumont Watermaster

There Will Enough Water!

- The New Water Paradigm – There is no shortage of water – there is only a shortage of low-cost water.

Questions?